

Ingenuity of demonstration fields <Part 1>

Advantage and misunderstanding of demonstration fields

In order to disseminate useful technologies to farmers, various extension methods have been studied and practiced. Demonstration fields are often used as an effective tool. Indeed, one could say it is an indispensable tool when disseminating cultivation techniques whose performance is affected by the natural environment of specific areas.

Demonstration fields have two main roles: "verification of the adaptability of the technology to the local natural and social environments" and "promotion of the usefulness of the technology for getting the farmers to know its application in the target area". Farmers are generally said to be skeptical of new technologies and conservatively attached to traditional methods. However, given the risks that farmers must take when adopting new technologies, it is inevitable that they should feel cautious. For such farmers, demonstration fields where they can confirm the applicability and usefulness of the new technology with their own eyes, are the most convincing tool. It is exactly a case of "Seeing is believing." In addition, when farmers set up a field by practicing new technologies by themselves, the demonstration field can also be a "place for technology transfer". From this point of view, there is no doubt that demonstration fields are an excellent tool for technology dissemination.

Demonstration fields are being used around the world as a useful extension. This said there is also the idea that "if a demonstration field is showing good results, the farmers will automatically embrace the methodology." The most typical example is the case where an advanced farmer in an area is selected as a model, and financial resources are imported from outside to set up a demonstration field. Cultivation in these "special" demonstration fields is likely to be successful, but the technologies are unlikely to extend to nearby farmers. Rather, even negative effects can be seen that widen the inequality among the community members and encourage other farmers to give up and be jealous. Therefore, locations and model farmers for demonstration fields should not be limited to special case scenarios and external financial inputs should be minimized.

It is also important to verify in advance that the technology itself is useful and applicable to target farmers. In particular, when introducing horticultural crops or irrigation technology, these technologies will not extend to farmers unless it is verified that the cost of the technology can be covered by local farmers.

How to show the field is also important. I saw one demonstration field designed to introduce a new variety. However, since there was no comparative variety, it did not allow visitors to evaluate accurately the superiority of that variety. In another case, I visited a demonstration field introducing a new technique. The field was composed from many plots randomly arranged with multiple treatments. Although I could observe some growth differences between the plots, it was not easy to clearly evaluate at a glance which treatment caused the differences. It was like an experimental field, not a demonstration field. The design of demonstration fields should be simple, keeping in mind that the purpose of a demonstration field is mainly for extension and communication to visitors.

The selection of installation conditions of demonstration fields, the validity of technology, and the field design described above are basic matters. More importantly, depending on the purpose of demonstration field and local conditions, it is necessary to plan the content and operation of the field and use it as a dissemination tool. We, AAI, have set up many demonstration fields in our work on agricultural sectors in developing countries and in this series, we will introduce some ingenious ideas for demonstration fields that we have developed for technology dissemination.



A demonstration field to show the effects of fertilizer and to promote its use. The field was designed to be easily understood visually.